

## THE SEVERN VALE, A NATIONAL STRONGHOLD FOR *LASIUS BRUNNEUS* (LATREILLE) (HYMENOPTERA: FORMICIDAE)

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Jones (1996), in reporting this elusive ant in Kent, included the old provisional 10 km square distribution map (Barrett, 1979). Subsequent recording activity has, however, had a profound effect on our knowledge of its British distribution. In particular we are aware of a large number of additional 10 km square records which alter the perspective of the species as having the Thames Valley as its stronghold in Britain, since we now know of a similarly large stronghold in the Severn Valley, including a new county record for Shropshire. An up-dated distribution map is now provided (Fig.1).

Barrett (1979) includes a small concentration of records along the Severn Vale in Worcestershire, largely based on the work of C.A. Collingwood in the 1960s and 1970s. Most of our records come from Gloucestershire and KNAA has additionally found a site in Shropshire, a new county record. KNAA is also aware of a scattering of new sites between the two stronghold areas and even single sites in N. Essex, W. Sussex and the Isle of Wight. Other Essex records have recently been described by Harvey & Plant (1996).

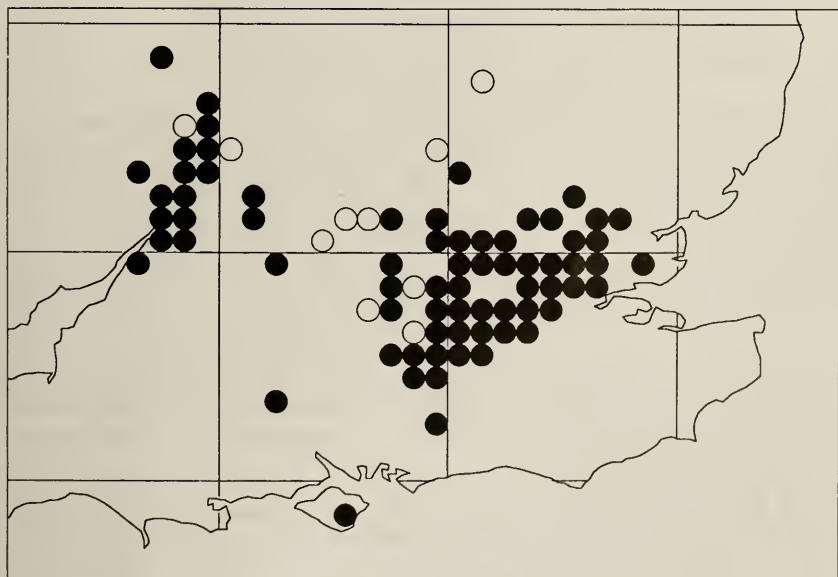


Fig 1. 10 km square distribution map for *Lasius brunneus*. Open circles represent squares with records from the period 1900-69 and where no more recent records have been forthcoming; solid circles are squares where the species has been recorded between 1970 and 1997.

The recognition of the Severn Vale as a major stronghold for the species has developed over the past fourteen years. The rate at which additional records are being made suggests that only a small proportion of the existing sites have been discovered. A distinct preference for old orchards has become apparent (sometimes in almost all the trees therein), as well as widespread use of old hawthorns, in addition to the more usual large open-grown oak trees. The records are as follows:

*Shropshire:*

SO78 Dudmaston Park SO746887 1996 parkland oaks KNAA

*Worcestershire:*

SO96 Hanbury Park SO943637 1984 parkland oak KNAA

SO84 Croome Park SO880443 1996 parkland oaks KNAA

*Gloucestershire:*

SO63 The Old Grange, Dymock SO688318 1993 parkland oaks KNAA

SO70 Hock Cliff SO730090 1996 woodland KNAA

Frampton Park SO753080 1996 woodland AT

SO71 Elmore river bank SO791163 1996 old orchard AT

Minsterworth Ham SO793155 1996 old orchard AT

Minsterworth Village SO788172 1996 old orchard AT

Minsterworth SO789176 1996 pub garden AT

Hartlands Hill, Lower Ley SO748157 1995 old orchard AT

Bulley Woods SO769199 1997 woodland KNAA

SO72 Collin Park Wood, Glos SO750276 1992 woodland KNAA

SO80 Little Haresfield SO810089 1995 old orchard AT

Woodland Trust Reserve SO820097 1995 woodland AT

SO81 Brookthorpe SO834127 1994 old orchard AT

SO82 Wainlode Hill, Glos SO8425 1986 woodland KNAA

Sandhurst Reserve SO817232 1989 woodland KNAA

Meerend Thicket SO828264 1993 woodland AT

SO83 Rayer's Hill, Deerhurst SO873304 1992 woodland AT

ST69 Whitcliffe Park ST670970 1993 parkland oaks KNAA

Other new areas away from the main strongholds are:

*Gloucestershire:*

SP11 Sherborne Park SP185157 1996 field oak KNAA

SP12 Hyde Mill Meadow SP176243 1997 hedgerow ash AT

*Berkshire:*

SU29 Buscot Park SU239973 1995 parkland oak KNAA

*Sussex:*

SU92 Petworth Park SU976218 1997 KNAA

*Isle of Wight*

SZ58 Nunwell SZ595874 1997 parkland oak KNAA

Additionally, Nick Blacker has recently found the ant in wood fragments on the Porton Down ranges, S. Wiltshire (SU23) (S. Roberts, pers. comm.). This record plus the new Isle of Wight discovery make it even more surprising that the species has not been found in the New Forest.

The current status of "Nationally Scarce Category A" (Falk, 1991) clearly needs revision. The definition of this category is species believed to occur in between 16 and 30 10km squares. The current provisional distribution map (see Fig. 1) includes 70 post-1970 squares plus an additional 10 for the period 1900-1969. Category B (31-100 squares) would appear more appropriate on current knowledge.

In none of the newly recorded areas is there any real evidence for expansion of the range of the species, rather we suspect that the species is doing very well where it

occurs and that previously it had either not been sought in these areas or else was at lower population densities and eluded detection. It is conceivable that it has become more widespread in the Severn Vale area, but the area has previously been very poorly recorded for ants. *Leptothorax nylanderi* (Forster) is also proving widespread here and some form of association is suggested, but this requires more study. The distribution of the two species nationally overlaps considerably.

#### ACKNOWLEDGEMENTS

We would like to thank Mike Edwards, Andy Foster and John Owen for making their records available, Colin Plant and Peter Harvey for information on the Essex colonies, and Stuart Roberts for providing the up-to-date distribution map from the records held by the Bees Wasps & Ants Recording Society. The map was drawn using the DMAP mapping package developed by Dr Alan Morton.

#### REFERENCES

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- Falk, S. 1991. *A review of the scarce and threatened bees, wasps and ants of Great Britain*. Research and Survey in Nature Conservation No. 35, Nature Conservancy Council, Peterborough.
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- Jones, R. A. 1996. *Lasius brunneus* (Latreille) (Hymenoptera: Formicidae) new to Kent? *Br. J. Ent. Nat. Hist.*, 9: 135–136.

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#### SHORT COMMUNICATIONS

**Firebugs *Pyrhocoris apterus* (L.) (Hemiptera: Pyrrhocoridae) breeding in Surrey.**— A colony of this distinctive RDBI bug was found by the senior author in Epsom, Surrey (TQ2161) in the summer of 1996. Nymphs and adults have been recorded beside a 50m stretch of alley-way through the Longmead industrial estate. The colony appears to be centred on the ground beneath an overhanging lime tree. In July 1997, adults and nymphs were abundant on the ground amongst brambles and nettles, and were observed feeding on fallen grass seeds, and blackberries. Smaller numbers occurred beneath a single Common Mallow plant c. 30m from the lime tree, where they fed on the fallen fruits. However, none were found beneath any of the other extensive patches of Mallow examined in the area.

All the adults examined, c. 30 to date, were short-winged and unable to fly. How the colony came to be here remains enigmatic, constituting as it does the first breeding record for Surrey although specimens were found at Ripley in February 1995 (Halstead, 1995). It will be interesting to see if the colony can survive and spread, joining the increasing list of new immigrants or formerly coastal bugs establishing inland colonies in the south of England. Thanks to Roger Hawkins for his advice and helpful comments. — DIANA ASHWELL, 94 Farriers Rd, Epsom, Surrey KT17 1LR & JONTY DENTON, 26 Bow St, Alton, Hants GU34 1NY.

#### REFERENCE

- Halstead, A. 1995. *Br. J. Ent. Nat. Hist.* 8: 142.